

Vilas Park Cultural Resources

Discussion of the history of cultural resources in Vilas Park and processes in place to protect them in relation to future construction projects within Vilas Park.

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Geology and Development of the Landforms etc.

The land surfaces and lakes that we are familiar with now in the City of Madison began to take their current form following the retreat of Laurentide Ice Sheet from the Great Lakes area about 20,000 years ago. As the glacier retreated, the dragging movement of the heavy ice and force of the melting water created the channel of the Yahara River and the basins of the four lakes. As the ice melt ended, water levels and river courses stabilized, and the four lakes of the Madison area were formed. Temperatures increased at the end of the Ice Age, leading to the vegetation changing from evergreen forests and large marsh areas to the modern types of vegetation we see today including hardwood forests, meadows with stands of oak, and prairies. These types of vegetation and trees are still present around Vilas Park and in the nearby University of Wisconsin Arboretum.

Native American Presence

Native Americans were present in the area that is now the City of Madison for thousands of years before the first documented non-native people from Europe entered the area. The Ho-Chunk people's oral history preserves detailed accounts of their long history in the Madison area before Europeans entered the area. In addition to the accounts of the Ho-Chunk, Native American traditional history and early Euro-American records document the presence of the Menominee, Meskwaki (Sauk), Fox, and Potawatomi peoples in the general Madison area.

We know from archaeological materials that the early Native Americans in southern Wisconsin were hunters and gatherers who harvested naturally available foods such as berries, roots, and seeds. Native Americans in this area also hunted large mammals, which included now extinct mastodons and mammoths, as well as animals no longer present in the area such as Elk. In addition to large animals, these people also hunted smaller mammals, birds, reptiles such as turtles and fish using bow and arrow, nets, spears, and traps.

In the early 20th century, State Historical Society of Wisconsin archaeologist Charles E. Brown documented Native Americans in the Madison area, as well as the sites of what are now Vilas Park and Lake Wingra. In articles and personal notes on archaeology in the Madison area, Brown described the importance of Lake Wingra to Native Americans, known by the Ho-Chunk as *Kichunkochheperrah* or "Where the turtle rises up". Brown reported that the Ho-Chunk frequented the general area of Lake Wingra and had campsites and villages in the areas of higher ground on the northern and eastern shores of the lake where Vilas Park and the Henry Vilas Zoo are now located.

Prior to the early 1900s, the main area of Vilas Park and edges of Lake Wingra were tamarack marsh with some areas of open water. Early maps of the area from surveys made in 1834 show that the northern shore Lake Wingra was located much farther north than its current location (Images). Maps from 1904 also show this area as part of the lake and open water/marsh.

In addition to early maps and survey records, historical records and photographs from the Madison Park and Pleasure Drive Association document where open water and marsh were located prior to 1906. Historical publications and records of the Madison Park and Pleasure Drive Association and from Brown record that 35 acres of "bog" were dredged and then filled in with materials left over from quarrying of limestone and with silt and marl from the dredging. Most of the western area where Vilas Park is now located was created after being filled in. A photograph dating to 1906 shows a dredge barge operating in Lake Wingra and shows the large areas of open water after the marsh vegetation and marsh has been cleared away and dredging had started.



1906 Image showing dredging and filling of open water area in the location of Vilas Park. Photograph most likely was taken from Vilas Avenue looking south/southwest (Madison Park and Pleasure Drive Association Image).

Since the time Brown documented the villages and campsite area, archaeologists have conducted several studies in Vilas Park. In 2017 the soil around the approaches to the pedestrian bridge located over the lagoon was examined by archaeologists and was found to consist of fill materials and marl that were deposited to cover wetlands and create dry land for the park area.

The data recorded in this study supports the idea that most of the park area extending to the northern shore of Lake Wingra was created with fill from dredged soil. Archaeological materials and sites are now most likely under several feet of soil that were originally the lake bottom and shallow marsh areas.



Map showing the northern extent of Lake Wingra in 1904 prior to dredging and filling in of the area that became Vilas Park (Anson 1904). Note that "Jackson Street" was renamed to "Vilas Avenue."



Map from the original 1834 survey of the Wisconsin Territory showing the extent of open water (most likely marsh) on north shore of Lake Wingra (GLO).

Archaeological and Cultural Resources Review for Park Development Projects

Wisconsin has long been a leader in efforts to preserve Native American archaeological sites and mounds. Since the late middle of the 19th century and the founding of the State Historical Society of Wisconsin in 1848, efforts have been made to record and protect cultural resources. During the early 20th century, the archaeologist Charles E. Brown was the museum director for the State Historical Society of Wisconsin. Brown was a pioneer in preservation efforts in Wisconsin to save Native American mounds and archaeological sites from destruction, including those in Madison and Lake Wingra area and the mounds and archaeological sites in Vilas Park and the Henry Villas Zoo.

During the 1950s, a large body of federal and state laws began to be put in place that were designed to protect archaeological sites and other cultural resources. These laws evolved to eventually become incorporated into Section 106 of the National Historic Preservation Act and the creation of the National Register of Historic Places in 1966 which was overseen and managed by the United States Park Service. The majority of work involving compliance and the enforcement of the federal laws were delegated to the states and regulated through state historical societies or historic preservation officers.

In addition to federal laws, states also created legislation to protect archaeological sites and other cultural resources. In Wisconsin, state Statutes 44.40 and 157.70 are the main laws regulating historic preservation and the protection of human burials.

In addition to federal and state laws, many counties and municipalities also have local ordinances and guidelines in place to help to protect and preserve archaeological sites and historical buildings. These laws and regulations are in place and often require evaluation of the potential effects of planned construction activities involving ground disturbance on archaeological sites or other historical locations prior to the start of construction activities.

Vilas Park is under management of the City of Madison. The City of Madison has guidelines in place for allowing construction projects to begin and the City follows state laws for ground disturbing construction planned to occur in areas of archaeological sites. Prior to permitting construction, the city and state agencies will often require a cultural resources background check and that this be completed by a professional archaeologist. The background check entails research of records of known locations of archaeological and historical sites within the area of planned ground disturbance and researching documents for evidence of unreported resources. The archaeologist will often consult with the State Historical Society of Wisconsin, Native American Tribal representatives and other concerned parties about the planned project and potential affects to known archaeological sites.

Following the background research, often a field investigation will be required in the general area for the planned construction, to identify the presence or absence of archaeological sites and materials. During the field investigation, the archaeologist will test soils in the planned project

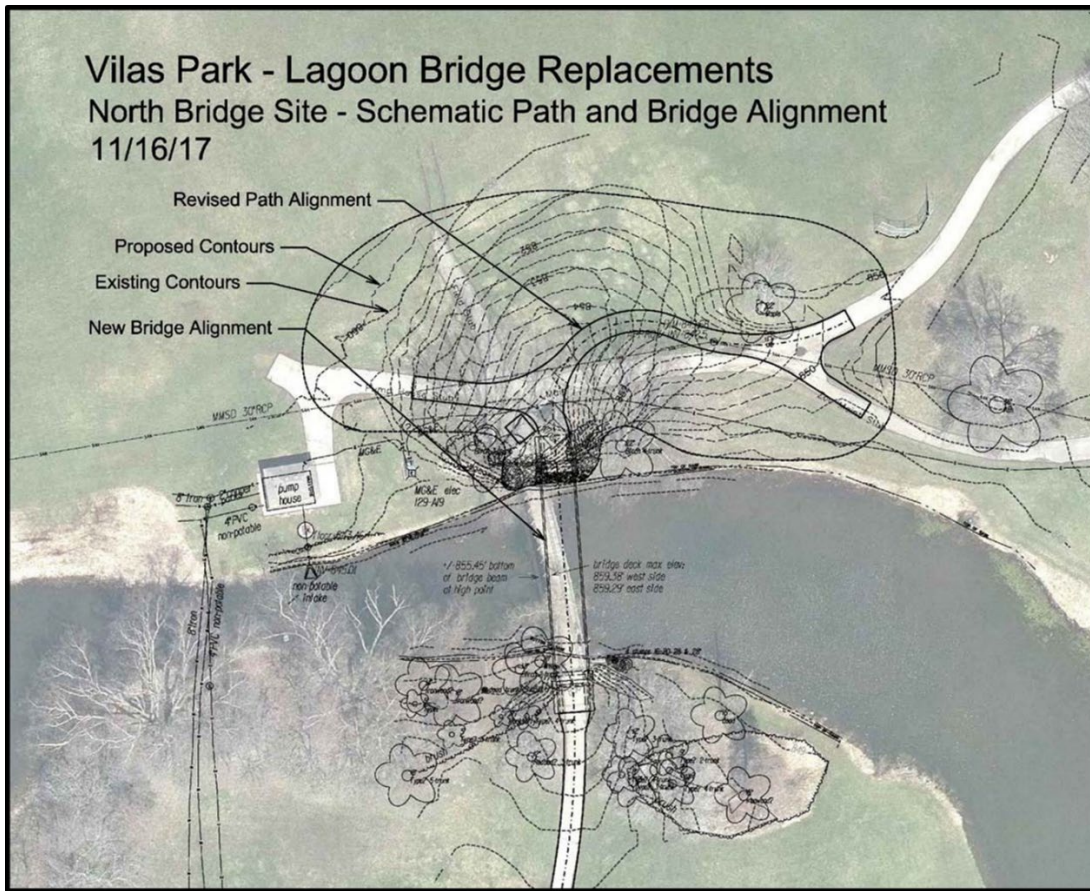
area looking for archaeological materials and evaluate the possibility that the layers of soils and prehistoric and historic period artifacts may remain intact within the soils of the planned construction area.

A past project within Vilas Park can be used to illustrate the compliance process. In 2017, the City of Madison Parks Division worked with City Engineering to replace two bridges located within Vilas Park. One of the planned construction areas was located partially within the boundaries of two reported Native American archaeological sites.

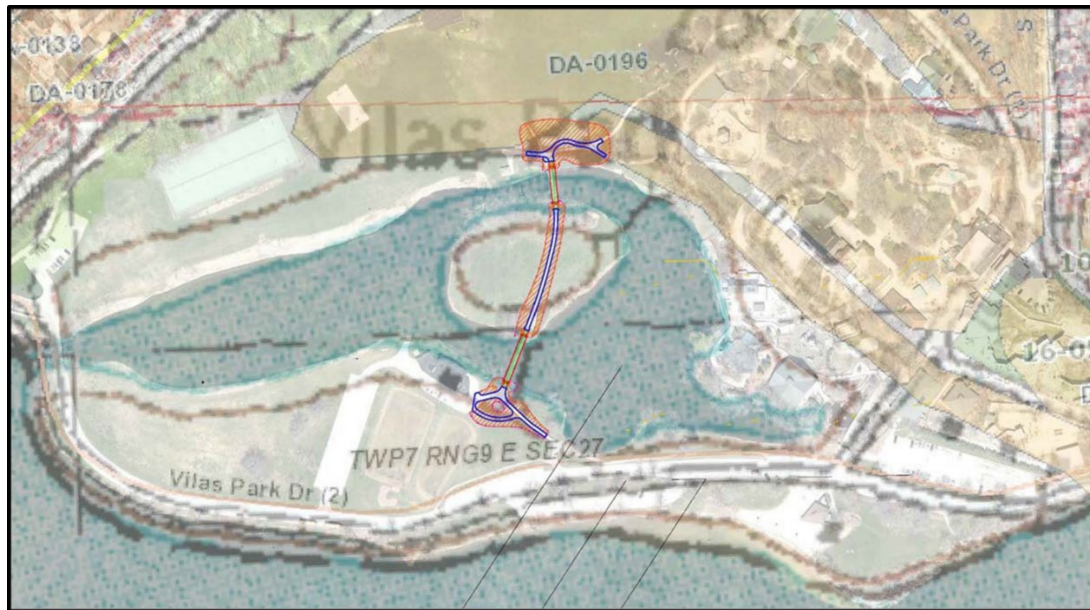
Following state laws and guidelines of the City of Madison for protecting archaeological sites, the City of Madison hired a professional archaeologist to conduct research and to determine if the planned construction would disturb the reported archaeological sites or any other historical cultural resources that had not previously been identified. The preconstruction process also involved public meetings that allowed for local involvement in the planning process as well as the notification of Native American Tribal representatives of the proposed project.

The archaeologist first took all the design drawings and descriptions of the planned ground disturbance and overlaid these drawings on the previously drawn maps of archaeological sites in the area, as well as over historical imagery and maps documenting previous ground disturbance that had occurred in the local area.

The archaeologist found that the planned construction entered into the areas of two previously reported archaeological sites. Following consultation with the State Historic Preservation office, a background search followed by a field investigation was done for the areas of planned ground disturbance prior to the construction being allowed to begin. A review of previous information on the area revealed that the planned construction would occur within the location of dredging and heavy ground disturbance that occurred in the early 20th century (See section above). This information was used during soil testing of the planned construction area.



Planned construction activities plotted on satellite imagery (City of Madison).



Planned construction activities superimposed on database layer showing previously reported archaeological sites and other locations of historical interest (State Historical Society of Wisconsin).

During the field investigation, the archaeologist excavated soil cores and small test pits to examine the soil types and stratigraphy. The investigation revealed that the soils present in the area of planned construction did not display well defined horizontal layers that are typically found when soil is naturally deposited over time. These observations supported the evidence from early 20th century photos and documents that the soil had been placed there in the early 1900s to create a level surface above the water level of the lagoon and Lake Wingra.

As a result of the investigation, it was determined that prior to the early 20th century, the area had been in open water or marsh and the soils which would be disturbed to facilitate the planned bridge replacement were not naturally deposited. Therefore, it was unlikely that the proposed construction would not disturb archaeological materials.

The archaeologist prepared a final report of their findings and submitted it to the State Historical Society for review. The State Historical Society agreed that the planned project did not have the potential to disturb the reported archaeological sites or intact archaeological materials and allowed the construction to continue. Construction was completed in 2018, and no archaeological materials were found.

Construction Archaeological Monitoring Process

During the 2017 project described above, the archaeologist found that the soils which would be disturbed during the planned construction had been deposited there in the early 20th century. The soils near the bridge did not have the potential to contain archaeological materials and could not have been part of the two previously reported precontact archaeological sites. As a result of the investigation, the construction was allowed to proceed without further investigations or the requirement that ground disturbance be observed.

During future construction projects within Vilas Park, similar investigations will take place prior to the permitting of ground disturbance. While the area on the north side of the bridge project was determined to be fill and not naturally deposited soils, this may not be the case for the entire park. Other areas of the park have the potential for undisturbed soils to be present under more shallow layers of fill soils, or in areas where fill soils were never deposited over the natural ground surfaces. These areas may contain intact archaeological materials. In those cases, all ground disturbing construction will be required to be observed by a professional archaeologist. In the case of areas that may contain human remains, the archaeologist must be authorized to work with human remains by the State Historical Society of Wisconsin.

These observations entail supervision by the archaeologist of all the ground disturbing activities until the grading or excavation work is completed. If archaeological materials are found, the work is stopped immediately, and the State Historical Society and Native American Tribal representatives are notified. Consultation is made between all concerned parties regarding the best way to document, preserve, or relocate the finds. When a consensus is reached between the

concerned parties and the conditions of the agreement are met, construction is most often allowed to continue with monitoring by the archaeologist until the work is completed.

Summary

All projects concerning ground disturbance within the areas of Vilas Park that are located within or adjacent to previously reported archaeological sites or areas that are likely to contain archaeological materials will be subject to the following process prior to construction beginning.

Project area identified per Vilas Park Master Plan

The first step of the evaluation process is to create preliminary design plans and define the areas that will potentially be subjected to ground disturbance during construction.

Preliminary project design and public engagement by Parks staff to determine project scope

Once the preliminary design plan is prepared, Parks staff will provide the public and concerned parties such as Native American Tribes with information on the proposed project and allow for their participation in the planning process and final design for the project.

Design development by Parks staff to determine ground disturbance limits and depths of grading and excavation

During this step, the Parks staff will incorporate public and concerned party input into finalizing designs and determine the areas of the proposed construction that will require ground disturbance.

Consult with the Wisconsin Historical Society, Native American Tribes and other concerned parties to review proposed disturbance areas and identify potential concerns for disturbing archaeological resources.

Depending on the results of consultation, if required, the City Parks Division will engage a professional archaeologist to assist the project managers in meeting state and local historical preservation laws and guidelines

Obtain required permits from the Wisconsin Historical Society and/or other State Agencies

The archaeologist and City Parks Division will secure required permits to conduct archaeological investigations on public lands and if necessary, an additional permit for conducting ground disturbance within reported areas of human remains.

Investigation of the proposed project area by a professional archaeologist

The archaeologist will review all available information concerning known archaeological sites within the proposed project area and will search for information on previously undocumented archaeological sites. The archaeologist will also review past reports for earlier archaeological investigations that occurred within the proposed project area.

Following completion of the background research, a field investigation will be done within the proposed project area and immediate adjacent areas that will be subjected to ground disturbance. The investigation will be done following the guidelines of the Wisconsin Archaeological Society for conducting archaeological research in Wisconsin. The investigation will conduct sampling of the project area by excavating small hand test pits and screening all soils through mesh.

If archaeological materials are found, all work will cease and the State Historical Society and other concerned parties, such as Native American Tribal representatives, will be consulted for mitigation. At this point, the archaeological investigation may be expanded to recover information and data on the site before the construction is allowed to continue or in some cases the project may be redesigned or relocated to avoid impact to the archaeological site.

Consult with State Historical Society and Native American concerned parties regarding the findings of the archaeological investigation

The archaeologist will prepare a final report documenting their findings and the results of the field investigation. The archaeologist can make recommendations for additional investigations, that the project be modified to avoid archaeological deposits or, if nothing was found, that the project be allowed to continue without an archaeologist supervising ground disturbing activities.

Construction archaeological monitoring (if necessary)

While sampling through testing of the project area seeks to identify archaeological materials, the entire project area often cannot be tested. Following the field investigation, if the possibility exists that archaeological materials and archaeological sites may be present within the proposed project area, the archaeologist, the State Historical Society, and concerned parties may request that the ground disturbance be observed during construction.

As in the case of the field investigation described above, if archaeological materials are observed during monitoring, all work will come to a halt and the State Historical Society and other concerned parties such as Native American Tribal representatives will be consulted prior to work continuing.

Depending on what is found, the work may be halted to allow for a new archaeological investigation to be done to recover information and archaeological materials before the construction is allowed to continue. Depending on the nature of what is found, the project may be redesigned or relocated to avoid impact to the archaeological site.

If no archaeological materials are found during monitoring of the ground disturbing construction, the archaeologist will prepare a final report to be submitted and reviewed by the State Historical Society of Wisconsin. After reviewing the report, the State Historical Society of Wisconsin will comment on the findings of the report and request additional information or will close the case.